

# **Mobility** CANADA

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**DOCKET FILE COPY ORIGINAL**

August 18, 1999

Ms. Magalie Roman Salas  
Secretary of the FCC  
Secretary's Office  
Federal Communications Commission  
445 Twelfth Street S.W., Room TWB-204  
Washington, D.C.  
20554

**RECEIVED**

**AUG 20 1999**

**FCC MAIL ROOM**

Dear Ms. Roman Salas:

**RE: CC Docket No. 99-200**  
**Numbering Resource Optimization**  
**Mobility Canada filing on July 30, 1999**

To follow-up on a conversation Susy Altherr of our office had with Mr. Bill Caton of your office, the FCC does not seem to have any records of the filing we submitted via e-mail on July 30, 1999.

We were therefore instructed to submit again one original copy of our filing plus 5 copies, which are included. I have also included for your information 6 copies of our e-mail submission and 6 copies of a reply we received from the FCC following our filing.

Please accept our attached submission as timely filed.

Thank you for your prompt attention and if you need more information please do not hesitate to call me at (613) 747-6496.

*Don Woodford.*

Don Woodford  
National Director  
Government & Regulatory Affairs

Attachments.

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**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

**In the Matter of**

**Numbering Resource Optimization**

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**CC Docket No. 99-200**

**Comments of Mobility Canada**

**Summary**

1. Mobility Canada believes that the requirement for CMRS carriers to implement thousands-block number pooling, which would require the deployment of Local Number Portability (LNP), would be unduly burdensome to those carriers. Alternatively, the implementation of such measures in U.S. wireless networks, independent of those in Canada and elsewhere, could negatively impact the international roaming services provided to both Canadian and U.S. customers.
2. Due primarily to the impact on roaming capability, Mobility Canada is on record before the Canadian federal regulator as stating its view that for LNP to be viable for wireless carriers, virtually every wireless switch and network in North America would have to have deployed LNP. Otherwise the potential to negatively affect a key feature of wireless service in the eyes of many customers, international roaming capability, becomes a real possibility.
3. While the issue of wireless number portability has been under consideration in Canada since 1996, those Canadian wireless carriers who do not operate as CLECs and who serve approximately 95% of Canadian customers, are not presently required to participate in LNP. Wireless networks and especially those in North America are highly interoperable. Mobility Canada believes that any requirement for U.S. wireless carriers to implement LNP in order to accommodate thousands-block pooling, independent of Canadian and other international wireless carriers, could adversely affect the service provided to both U.S. and Canadian customers by disrupting roaming capability.



**Introduction**

4. These comments are filed by Mobility Canada in response to the Federal Communications Commission's ("Commission") Notice of Proposed Rulemaking ("Notice") in the matter of Numbering Resource Optimization, CC Docket No. 99-200, released June 2, 1999.
5. Mobility Canada is an association of Canadian wireless service providers whose membership consists of the wireline-affiliated licensees operating throughout Canada. Mobility Canada's member companies provide service to over three million subscribers comprising in excess of one-half of the Canadian wireless market. Mobility Canada's members are licensed by the Government of Canada and operate as forborne service providers pursuant to the jurisdiction of the Canadian federal telecommunications regulatory authority, the Canadian Radio-television and Telecommunications Commission ("CRTC").
6. Licensed to provide voice and data cellular and personal communications services ("PCS") throughout Canada, Mobility Canada's members also provide a full suite of related wireless services including paging, satellite and air-to-ground communications. Through agreements with other Canadian as well as international wireless carriers, Mobility Canada also provides the ability for its customers to use their services while roaming, outside of their home territory, both within and outside of Canada.
7. A number of Mobility Canada's members are also members of the Cellular Telecommunications Industry Association ("CTIA") and Mobility Canada supports the CTIA's comments in this proceeding. In particular, Mobility Canada supports CTIA's comments opposing the inclusion of U.S. Commercial Mobile Radio Service ("CMRS") carriers in telephone number pooling.
8. Mobility Canada's interest in this Notice relates specifically to that portion of the proceeding which is considering mandating U.S. CMRS carriers to implement thousands-block number pooling and the effect of such an initiative on the provision of international roaming service to wireless customers in both Canada and the U.S.

**Mobility Canada and the Issue of Numbering Resource Optimization**

9. As the Commission stated in footnote one of the Notice, in addition to the United States, the North American Numbering Plan ("NANP") is the basic numbering scheme for the telecommunications networks located in several countries in the North American hemisphere, including Canada. Mobility Canada has been an active

member in the North American Numbering Council ("NANC") since its inception in 1996. This is in recognition of the fact that decisions resulting in significant changes to the NANP can significantly impact the services provided by wireless carriers in Canada.

10. At the outset, Mobility Canada notes that it shares the Commission's concerns with regard to the rate of NANP area code exhaust. Mobility Canada notes that the exhaust of the NANP is now estimated to occur in 2007 and agrees that, were such an event to occur, it would have serious negative implications for both telecommunications carriers and their users. Mobility Canada understands that efficient telephone number utilization could postpone this exhaust date by decades. Consequently, Mobility Canada is in favor of efficient telephone number utilization methods. It is equally important however that any optimization methods chosen do not inequitably affect one sector of the telecommunications industry, or its users, relative to another.
11. In this regard, Mobility Canada notes that NANP exhaust models have attempted to estimate the impact of incrementally including different telecommunications industry segments in number pooling. Mobility Canada also notes that there is no consensus, among interested parties, concerning the results of these models as they relate particularly to the inclusion of CMRS carriers in number pooling. Mobility Canada does not believe, given the challenged status of the NANP exhaust models, that the currently available estimates are sufficiently reliable to justify their use as a rationale to include CMRS carriers in number pooling.
12. However, based on the record to date, it would appear that rate center consolidation may offer the most promising opportunity to optimize the use of numbering resources. While further examination of this option may be required, rate center consolidation appears to offer the promise of significantly extending the NANP exhaust date without unfavorably impacting other industry segments. Concerning the wireless industry segment, Mobility Canada notes that inherent aspects of wireless network architectures as well as industry growth characteristics, both in Canada and in the U.S., include factors that contribute toward the more efficient use of numbering resources by wireless carriers. These include, for instance, large wireless local calling areas that frequently cover as many as ten, or more, wireline rate centres. Similarly, the dramatic wireless subscriber growth rates being experienced throughout North America result in wireless carriers having very high number utilization rates, further contributing to the efficient use of numbering resources.
13. Mobility Canada also notes that the Commission, in laying out its goals for this proceeding, has recognized the need to ensure that, in order to be considered viable, chosen solutions have to minimize any negative impact on consumers. Similarly, another stated goal is that of ensuring that no class of carriers or consumers is unduly

avored or disfavored by the chosen optimization methods. Indeed, at paragraph 138 of the Notice, the Commission acknowledges that carriers should only be required to participate in thousands-block pooling where the benefits of pooling outweigh the associated costs. For the reasons outlined below, Mobility Canada believes that the requirement for wireless carriers to implement thousands-block number pooling, which would require the deployment of Local Number Portability (LNP), would be unduly burdensome to wireless carriers. Alternatively, the implementation of such measures in the U.S., independent of Canada, could negatively impact the international roaming services provided to both Canadian and U.S. customers.

### **Number Pooling and International Roaming**

14. The mobility aspect of wireless services is the essential feature that differentiates it from traditional wireline service. For customers, this is characterized by the ability to roam both nationally and internationally. As a result, it is very common for an American-registered mobile to be used in a roaming mode in Canada. The same is true for Canadian-registered mobile terminals used by Canadian customers roaming in the U.S. Including Canada and the U.S., twenty-one countries utilize the ANSI-41 protocol for intersystem signaling and roaming as demonstrated by CTIA's International Forum on AMPS Standard Technology, i.e. the IFAST Forum. Consequently, changes affecting these standards have to be closely coordinated within the international wireless community and should not be undertaken on a unilateral basis.
15. Many of Mobility Canada's members share adjoining international border areas with a number of American CMRS licensees. Moreover, and significant for the purposes of this proceeding, customers of both groups irrespective of their home locations frequently roam with their wireless services into each other's country. These customers, whether travelling on business or for pleasure, have become accustomed to and, in fact, depend on the ability to seamlessly use their wireless services to place and receive calls, regardless of their actual geographical location at the time of the call, i.e. whether in Canada or the U.S.
16. Among other things, the Commission's Notice considers telephone number pooling, and specifically thousands-block pooling, as one of the leading methods available to address the problem of NANP area code exhaust. The Notice also recognizes that number pooling can only be implemented where the Location Routing Number (LRN) infrastructure, necessary to support Local Number Portability, has been deployed.
17. Virtually all North American wireless carriers, including those represented by Mobility Canada, participate in the Telecommunications Industry Association's ("TIA") standards development forums. The work performed by such forums, e.g.

the TR 45.2 working group, reflects the interoperability and highly interdependent nature of North American wireless networks. Such work also acknowledges that, in the wireless universe, fundamental network architectural changes in one jurisdiction have the potential to affect services and service providers in other jurisdictions. In this regard, with respect to the TIA TR 45.2 - Wireless Number Portability Interim Standard I.S. 756A, Mobility Canada understands that the schedule for vendor development activities, related to the interim standard, is already challenged to meet the November 2002 CMRS – wireless LNP implementation date. Challenged to the extent that some functions, e.g. Short Message Service, may not be ready in time. As an initial consideration therefore Mobility Canada questions the feasibility of accelerating the November 2002 implementation date to facilitate thousands-block pooling.

### **Number Portability and International Roaming**

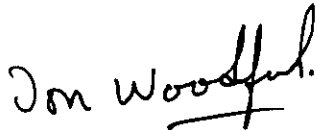
18. In its CMRS LNP Forbearance Order, the Commission extended its date for U.S. CMRS implementation of LNP technology to November 2002. As stated in the current Notice, at paragraph 168, this was based on a finding that to mandate an earlier implementation date would impose significant costs and burdens on wireless carriers. The Commission concluded that these costs and burdens were of sufficient magnitude that they were not warranted for LNP purposes.
19. Mobility Canada concludes that it is clear from the Commission's findings in its CMRS LNP Forbearance Order that the costs and burdens of implementing LNP in wireless networks are significant. We submit that it is not clear that from the available information, that the benefits of including CMRS carriers in number pooling would outweigh those very same significant costs and burdens that would be incurred to support number pooling. Given that the Commission recognizes that carriers should be only required to participate in number pooling in areas where the benefits of pooling outweigh the associated costs, Mobility Canada submits that U.S. CMRS carriers should not be subject to number pooling prior to the November 2002 LNP implementation date, if at all.
20. With regard to the Canadian scene, the issue of wireless number portability has been under consideration in Canada since 1996. Despite this fact, at the present time Canadian wireless carriers who do not operate as competitive local exchange carriers (CLECs) and who serve approximately 95% of Canadian customers, are not required to participate in LNP. Mobility Canada believes that, among other things, this reflects the fact that effective competition in the Canadian wireless market has not been hampered by the lack of wireless number portability. To the contrary, the Canadian wireless market is characterized by dramatic subscriber growth rates, including for new entrants, and prices that rank among the lowest in the world.

21. Due primarily to the impact on roaming capability, Mobility Canada is on record before the Canadian federal regulator as stating its view that for LNP to be viable for wireless carriers, virtually every wireless switch and network in North America would have to have deployed LNP. Otherwise the potential to negatively affect a key feature of wireless service in the eyes of many customers, international roaming capability, becomes a real possibility.
22. Similarly, any requirement for U.S. wireless carriers to implement LNP, in order to accommodate thousands-block pooling, independent of Canadian and other international wireless carriers, could adversely affect the service provided to both U.S. and Canadian customers by disrupting international roaming capability. Other functions that would also likely be at risk include billing accuracy, number-related CLASS features and, potentially, calls to 9-1-1 emergency services.
23. Mobility Canada further submits that if Canadian carriers were required to implement LNP to ensure continued compatibility with U.S. wireless networks, this would impose a severe and unwarranted financial burden on the majority of Canadian wireless carriers as it would for U.S. wireless carriers. Alternatively, if Canadian wireless carriers did not implement LNP within their networks, the international roaming services provided to both U.S. and Canadian customers would be negatively impacted, if available at all.
24. Mobility Canada notes that the relevant statistics indicate a need for the Commission to take into consideration the effects of U.S. mandated wireless number portability on international roaming. Industry statistics indicate that there are approximately 82 million cellular and PCS customers in the U.S. and Canada combined. Of these, approximately 80 million or 98% operate on systems utilizing the ANSI 41 interswitch signaling protocol using either AMPS, TDMA or CDMA access technologies. Mobility Canada notes that if wireless number portability is deployed in the U.S., or even in only selected areas of the U.S. such as the largest 100 MSAs, roaming within the 21 countries using the ANSI 41 protocol could be seriously disrupted. Mobility Canada believes that such a circumstance would unduly disfavor the significant numbers of customers and wireless carriers so impacted.
25. Mobility Canada also believes that the current economics of the Canadian wireless market are relevant in this regard. As compared to the U.S., the Canadian market consists of a relatively small population base dispersed over an enormous geographical area. As the new PCS licensees continue to build out their networks and incumbent cellular providers convert to digital, it is telling that in 1998 three of Canada's four carriers, operating in Ontario and Quebec – Canada's most heavily populated provinces, reported a loss and the fourth reported a very marginal profit. Mobility Canada concludes from this that it is not economically feasible, and would constitute a significant and undue burden for the majority of Canadian wireless carriers to implement LNP, as a means of supporting thousands-block number

pooling, at this time. Mobility Canada also believes that a similar significant economic burden would be incurred by all U.S. CMRS carriers including those operating in rural and smaller market areas outside the largest 100 MSAs.

### **Conclusion**

26. For the above reasons, Mobility Canada respectfully requests that the Commission reject any numbering resource optimization measures that would require CMRS carriers to implement local number portability prematurely.



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